

### **In the Claims:**

This listing of the claims will replace all prior versions, and listings, of claims in the application.

### **Listing of the Claims:**

1. (currently amended) A method for reducing tumor mass comprising the step of administering to an individual suffering from cancer an amount of a Herpes simplex virus (HSV) comprising a modified HSV genome wherein said modification comprises a modification of an inverted repeat region of said HSV genome such that only one  $\gamma_134.5$  gene ~~remains intact~~ expresses an active gene product, said amount of HSV being effective to reduce tumor mass.
2. (currently amended) The method of claim 1 wherein the modification of the inverted repeat region of the genome comprises an alteration ~~of a copy of a  $\gamma_134.5$  gene which renders that copy of the gene incapable of expressing an active gene product~~ such that the region is rendered incapable of expressing an active gene product from only one copy each of ICP0, ICP4, ORF0, ORF1, and  $\gamma_134.5$ .
3. (currently amended) The method of claim 2 wherein the ~~alteration~~ modification of the  ~~$\gamma_134.5$  gene~~ comprises an insertion of a DNA sequence comprising one or more nucleotides ~~into the coding region or regulatory region of the gene.~~
4. (currently amended) The method of claim 2 wherein the ~~alteration~~ modification of the  ~~$\gamma_134.5$  gene~~ comprises a deletion ~~of all or part of the coding region or regulatory region of the gene.~~
5. (currently amended) The method of claim 1, 2, 3, or 4 wherein the modified HSV genome further comprises ~~an alteration in a unique region of the HSV genome~~ deletion of a gene selected from the group consisting of  $\alpha 0$ ,  $U_L2$ ,  $U_L3$ ,  $U_L4$ ,  $U_L10$ ,  $U_L11$ ,  $U_L12$ ,  $U_L12.5$ ,  $U_L13$ ,  $U_L16$ ,  $U_L20$ ,  $U_L21$ ,  $U_L23$ ,  $U_L24$ ,  $U_L39$ ,  $U_L40$ ,  $U_L41$ ,  $U_L43$ ,  $U_L43.5$ ,  $U_L44$ ,  $U_L45$ ,  $U_L46$ ,  $U_L47$ ,  $U_L50$ ,  $U_L51$ ,  $U_L53$ ,  $U_L55$ ,  $U_L56$ ,  $\alpha 22$ ,  $U_S1.5$ ,  $U_S2$ ,  $U_S3$ ,  $U_S4$ ,  $U_S5$ ,  $U_S7$ ,  $U_S8$ ,  $U_S8.5$ ,  $U_S9$ ,  $U_S10$ ,  $U_S11$ ,  $\alpha 47$ , OrisTU, and LATU.

6. (Original) The method of claims 1, 2, 3, or 4 wherein the cancer is a noncentral nervous system cancer.
7. (Original) The method of claim 1, 2, 3, or 4 wherein the cancer is a central nervous system cancer.
8. (Original) The method of claim 5 wherein the cancer is non-central nervous system cancer.
9. (Original) The method of claim 5 wherein the cancer is a central nervous system cancer.
10. (new) The method of claim 5 wherein the gene is selected from the group consisting of U<sub>L</sub>16, U<sub>L</sub>24, U<sub>L</sub>40, U<sub>L</sub>41, U<sub>L</sub>55, U<sub>L</sub>56,  $\alpha$ 22, U<sub>S</sub>4, U<sub>S</sub>8, U<sub>S</sub>11.
11. (new) The method of claim 5 wherein the HSV comprises deletions of U<sub>L</sub>24 and U<sub>L</sub>56.
12. (new) The method of claim 3 wherein the DNA sequence encodes HSV-2 glycoproteins G, J, D, and I.
13. (new) The method of claim 8 wherein the modified HSV is R7020.
14. (new) The method of claim 9 wherein the modified HSV is R7020.
15. (new) The method of claims 1, 2, 3, or 4 wherein the HSV genome comprises an insertion of an expressible non-natural protein coding sequence under the control of a herpes simplex virus promoter.
16. (new) The method of 2 wherein the modified HSV is administered to the tumor by direct injection.